WHAT IS CLAIMED IS:

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1. A method of anodic bonding at least one conductive layer to at least one layer of a second material which is capable of forming an electrochemical cell in combination with the conductive layer, wherein cations formed during said bonding are directed away from a critical bonding surface.

2. A method according to Claim 1, wherein contacting electrodes used in said anodic bonding are contacted with layers to be bonded in a manner such that a contamination surface of said second material to which said cations are directed, or upon which compounds of said cations are formed during said bonding can be removed, or such that said contamination surface can be cleaned to remove said compounds, or such that said contamination surface is located relative to said critical bonding surface such that said contamination surface does not affect the function of a device which includes said critical bonding surface.

3. A method according to Claim 2, wherein alternating layers of said conductive layer and said second material are bonded using a combination of contacting electrodes which contact each alternating layer separately.

4. A method according to Claim 3, wherein each alternating layer is contacted separately by a separate electrode.

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5. A method according to Claim 3, wherein each of said conductive layers is contacted by an extended contact electrode which does not contact a layer of said second material and each layer of second material is contacted by an extended contact electrode which does not contact a layer of said conductive material.

6. A method according to Claim 3 or Claim 4, or Claim 5, wherein a contacting electrode contacts a limited area on a major surface of a layer of second material.

7. A method according to Claim 3, or Claim 4, or Claim 5, where a contacting electrode contacts a minor surface of a layer of second material.

8. A method according to Claim 1, wherein each electrochemical cell formed is in parallel with each other electrochemical cell.

9. A method of anodic bonding at least one conductive layer to at least one glass layer to form a bonded structure, wherein sodium ions formed during said bonding are directed away from a critical bonding surface.

10. A method according to Claim 9, wherein contacting electrodes used in said anodic bonding are contacted with layers to be bonded in a manner such that a contamination surface of said glass layer to which said sodium ions are directed, or upon which sodium compounds are formed during said bonding can be removed, or such that said contamination surface can be cleaned to remove said sodium compounds, or such that said contamination surface is located relative to said critical bonding surface such that said contamination surface does not affect the function of a device which includes said critical bonding surface.

11. A method according to Claim 10, wherein alternating conductive and glass layers are bonded using a combination of contacting electrodes which contact each alternating layer separately.

12. A method according to Claim 11, wherein each alternating layer is contacted separately by a separate electrode.

13. A method according to Claim 12, wherein each of said conductive layers is contacted by an extended contact electrode which does not contact a glass layer and each glass layer is contacted by an extended contact electrode which does not contact a said conductive layer.

14. A method according to Claim 11 or Claim 12, or Claim 13, where a contacting electrode contacts a limited area on a major surface of a glass layer.

15. A method according to Claim 11, or Claim 12, or Claim 13, where a contacting electrode contacts a minor surface of a glass layer.

16. A method according to Claim 9, wherein each electrochemical cell formed is in parallel with each other electrochemical cell.

17. A method according to Claim 9, wherein said conductive layer comprises a semiconductor.

18. A method according to Claim 17, wherein said semiconductor comprises silicon.

19. A method according to Claim 9, wherein said glass is a borosilicate glass.

20. A method according to Claim 19, wherein said anodic bonding is carried out at a temperature ranging from about 300 °C to about 500 °C.

21. A method according to Claim 19 or Claim 20, wherein said anodic bonding is carried out using a DC voltage ranging from about -0.2 kV to about -2.0 kV.

22. A method according to Claim 9, wherein said glass is a lithium aluminosilicate - β-quartz glass ceramic.

23. A method according to Claim 22, wherein said anodic bonding is carried out at a temperature ranging from about 140 ° to about 180 °C.

24. A method according to Claim 22 or Claim 23, wherein said anodic bonding is carried out using a DC voltage ranging from about -0.3kV to about -1.0 kV.

25. A method according to Claim 9, wherein said conductive material is a metal.

26. A method according to Claim 19 or Claim 22, wherein said conductive material is a metal.

27. The method of Claim 9, wherein said bonded structure comprises at least three conductive layers and two layers of glass.

28. The method of Claim 9, wherein each electrochemical cell formed is in parallel with each other electrochemical cell.

29. A method of anodic bonding in which electrochemical cell formed is in parallel with each other electrochemical cell.

30. A method according to Claim 29, wherein cations formed during said anodic bonding are directed away from a critical bonding surface.

31. A method according to Claim 30, wherein contacting electrodes used in said anodic bonding are contacted with layers to be bonded in a manner such that a surface contaminated with compounds formed from said cations directed away from a critical bonding surface can be removed.

32. A method according to Claim 30, wherein contacting electrodes used in said anodic bonding are contacted with layers to be bonded in a manner such that a surface contaminated with compounds formed from said cations directed away from a critical bonding surface is located relative to said critical bonding surface such that said contamination surface does not affect the function of a device which includes said critical bonding surface.

33. A method according to Claim 30, wherein alternating layers are bonded using a combination of contacting electrodes which contact each alternating layer by a separate electrode.

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~~34~~. A method according to Claim 31 or Claim ~~32~~, wherein a contacting electrode contacts a limited area on a major surface of a layer to be bonded.

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~~35~~. A method according to Claim 31, or Claim ~~32~~, wherein a contacting electrode contacts a minor surface of a layer to be bonded.

36. A device formed from an anodic bonded structure, wherein minimal, if any, compound residues formed from cations produced during an anodic bonding process are present within said device.

37. The device of Claim 36, wherein said compound residues comprise sodium.

38. The device of Claim 36 or Claim 37, wherein said anodic bonded structure comprises a semiconductor.

39. The device of Claim 36 or Claim 37, wherein said anodic bonded structure comprises a metal.